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STANDARD DESCRIPTIONS OF VEGETABLES

BEETS AND CARROTS

A Guide to Seed-Growers

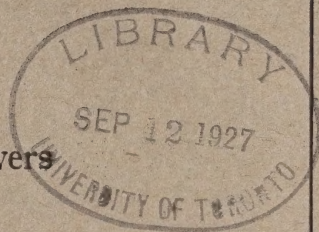
BY

T. F. RITCHIE, B.S.A.  
ASSISTANT IN VEGETABLE GARDENING

DIVISION OF HORTICULTURE  
DOMINION EXPERIMENTAL FARMS

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# Standard Descriptions of Vegetables:

## Beets and Carrots

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### FOREWORD

The establishment of standard descriptions of the different varieties of vegetables has been the outcome of a feared shortage of vegetable seed during the years of the world war. At that time many of the countries directly concerned in the production and exportation of seed to Canada were seriously affected and in some cases deeply involved in the conflict. These circumstances caused no small concern for the welfare of Canada, and as a consequence the leaders in agriculture began to investigate the possibilities of producing seed under Canadian conditions. The Dominion Experimental Farms, agricultural colleges, and private individuals tried the experiment with the material that was available, and to the great satisfaction of all concerned it was found that seed of first-rate quality could be produced in Canada; seed that compared very favourably with imported supplies, and that in some cases was far superior.

With the trying times past we still find growers endeavouring to carry on seed production in Canada with a view to supplying seed that will produce crops that are true to type for the variety. Difficulties experienced in this have been the lack of a type-book to serve as a guide in picking out the ideal type, and to have this ideal type, as illustrated and described in such a book, conformed to by all growers. Furthermore, a type-book was needed as a means of checking up on the crops produced from seed from other sources, as related to the sale of such seed under license (as laid down in Section 6 of the Seeds Act of 1923). Then, again, there was need for such a descriptive treatise on account of the future production of foundation stock, élite stock seed, and registered seed. The rules for establishing these different grades of seeds are given in the appendix.

At this juncture the writer desires to emphasize the fact that the work of preparing the official List of Standard Variety Names was carried out jointly by the representatives of the Canadian seedsmen, seed-growers, and vegetable-growers. It should be stated also that every assistance was given by these different organizations and growers in preparing a list of variety names that would eliminate as far as possible all synonymous or overlapping names. The officers of the Seed Branch invited representatives of the groups mentioned to meet at different centres to discuss the possibility of eliminating useless sorts. These conferences were held at various centres throughout Canada. In addition to these interested groups, representatives of the agricultural colleges, and the Dominion Experimental Farms were also consulted. After all these conferences had been completed, the material for the Official List of Standard Variety names was submitted to the special Vegetable Committee, under the Canadian Seed Growers, for their consideration.



The compilation of the Official List of Standard Variety names was very necessary to the Seed Branch to enable them to control the importation of inferior seed and inferior varieties and to have a list of choice varieties to offer to the growers of vegetable crops.

Varieties of vegetables cannot be declared pure or impure on the basis of a germination test conducted in a laboratory; a field or growing test is necessary to find out the percentage of roots or plants conforming closely to one type. With field tests necessary to establish the purity of a variety, it was found that a type-book was not in existence that could be used as a guide in classifying the pure, or to define the percentage off type in a sample obtained from a quantity of seed. Then it became apparent that steps must be taken to establish types for each kind of vegetable in the Official List of Standard Varieties. This work is of very great importance to the Seed Branch as it will place a definite standard for each variety in the hands of interested parties and will facilitate the work of controlling the sale of seed.

The establishment of a set of "type" pictures satisfactory to the trade was undertaken by the special committee under the Canadian Seed Growers Association, and to this end, the members of the committee were requested to collect pictures of vegetables that would conform closely to the desired type for each variety. The writer secured from seed firms suggestions and "type" pictures. In every case the seed firms heartily co-operated and expressed their good will toward the undertaking.

Since it was proposed to establish the production of stock seed in Canada under the regulations of the Canadian Seed Growers Association, it was quite evident that a guide-book should be prepared to enable growers to select their stock in conformity with the requirements of the association for each sort of vegetable. It should be pointed out, however, that the main purpose of this bulletin is to place in the hands of the growers the type that has been decided upon as ideal, or as close to ideal as is possible to get at the present time, and towards which the grower should work. A slight range of variation from this ideal type will be necessary, but so far, the range has not been decided upon, due to the fact that few of the samples of seed of any variety have been found satisfactory enough, or have been tested a sufficient length of time to ascertain the variation that could be expected from year to year.

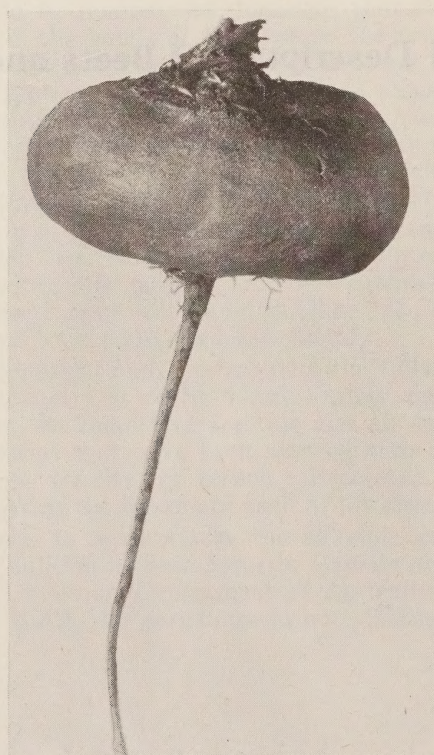
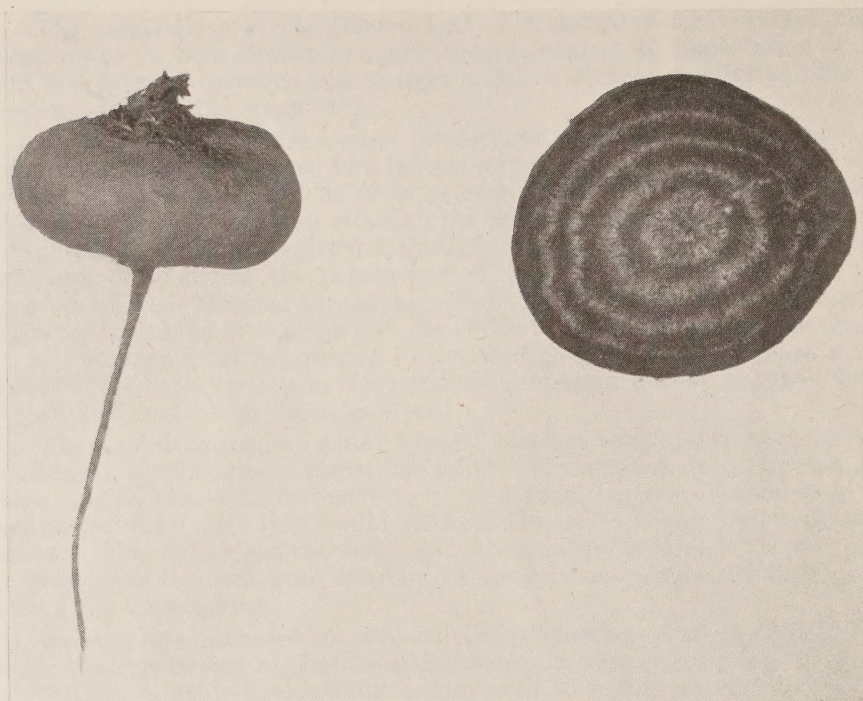
The first bulletin of the proposed series on vegetable types deals with beets and carrots as garden vegetables. The manuscript with photographs of typical roots was submitted to the meeting of the Vegetable Committee under the Canadian Seed Growers Association held at Oka, P.Q., in 1926, when the matter and "type" pictures were considered satisfactory.

The varieties described and illustrated in the following pages are arranged according to the Official List of Standard Variety names. This arrangement was agreed upon by the committee for this and all subsequent bulletins along this line. The varieties that have been marked with an asterisk are the most desirable in earliness, quality, or season. Reference is made to the general utility of each variety at the bottom of each of the descriptive pages.

The writer wishes to acknowledge the valuable assistance rendered in the preparation of this bulletin by seed firms in Canada and the United States and by officials of the Dominion Department of Agriculture. His thanks are due Mr. H. R. Murray, B.S.A., for assistance in note-taking and photographic work.

## **Standard Description of Beets and Carrots**





\*EARLY FLAT EGYPTIAN



**\*EARLY FLAT EGYPTIAN**

*Synonyms*—Dark Red Egyptian, Dark Red Egyptian Turnip, Early Large Egyptian, Egyptian, Egyptian Dark Red Turnip, Egyptian Extra Early, Egyptian Turnip, Extra Early Dark Red Egyptian, Extra Early Dark Red Flat Egyptian, Extra Early Egyptian, Extra Early Egyptian Flat, Extra Early Egyptian Red Turnip, Extra Early Flat Egyptian, Improved Early Egyptian.

*Season*—Early, requiring around 60 days from seed-sowing to ready-for-use.

*Plant*—Strong, upright form, clear well-defined crown of medium to small size.

Leaves: Few in number, average about  $5\frac{3}{4}$  inches in length from the upper tip to the juncture with the petiole and average  $3\frac{3}{4}$  inches in width.

Colour: Varies greatly from dark green shading to red, with very pronounced dark-red veins.

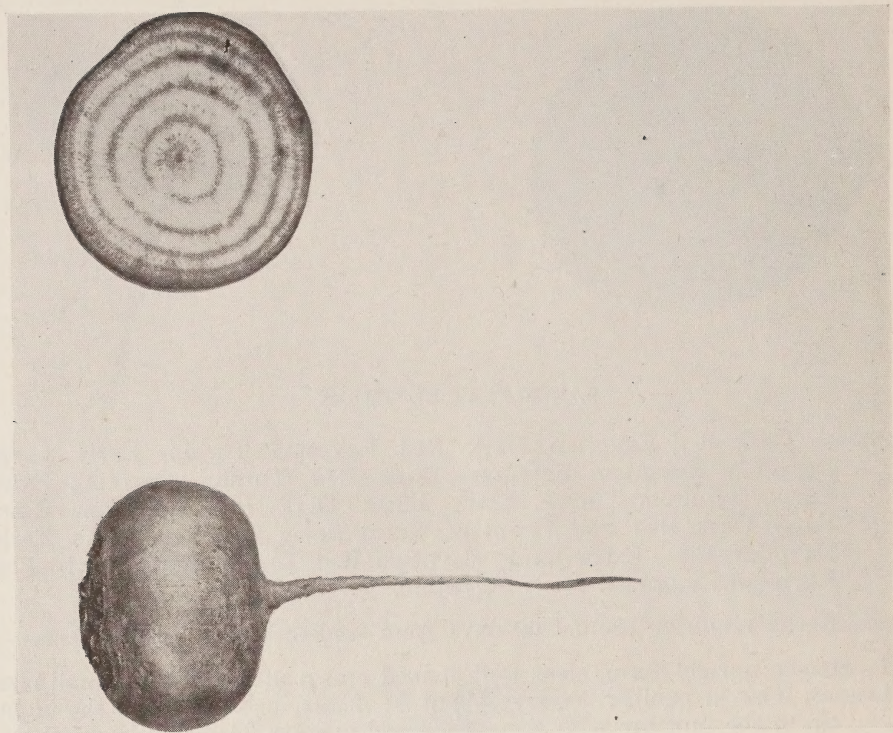
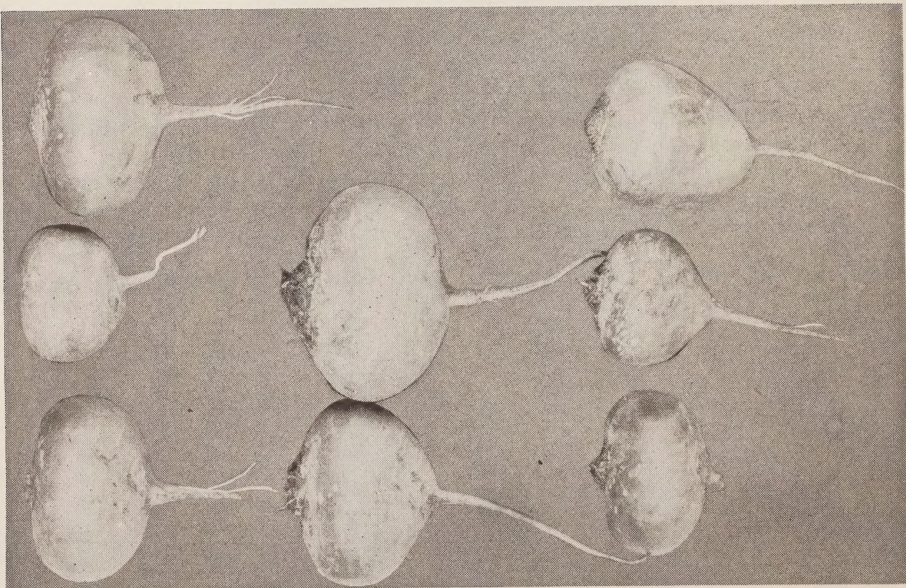
*Root*—Form: Length longitudinally  $1\frac{3}{8}$  inches, transversely  $3\frac{3}{8}$  inches, with about  $\frac{1}{3}$  above ground; flattened; top of root, squared-conical; base of root, squared.

Tap root: Rat-tail-like and small.

Surface: Smooth except for a few basal root-hairs close to the juncture of the rat-tail with the base of the beet quite dark red in colour.

Flesh: Dark to purplish red, with broad almost indistinct zoning which is sometimes noticeable by lighter shading. Texture is crisp and tender in the early stages when the roots are about 2 inches in diameter.

*Adaptation*—Well suited for forcing and also for early market as a bunching beet.



CROSBY EGYPTIAN



**CROSBY EGYPTIAN**

*Synonyms*—Crosby's Early Egyptian, Crosby's Egyptian Arlington Strain, Crosby's Egyptian Gregory Improved Strain, Crosby's Improved, Crosby's Improved Egyptian, Crosby's Improved Extra Early Egyptian, Early Crosby.

*Season*—Early, requiring around 60 days from seed-sowing to ready-to-use.

*Plant*—Strong, erect with medium to small crown that is termed "square."

Leaves: Quite compactly arranged, moderately erect and average  $5\frac{1}{2}$  inches from the tip to the juncture with the petiole, by  $4\frac{1}{10}$  inches wide.

Colour: Varies greatly from deep red to bronze and green blotching.

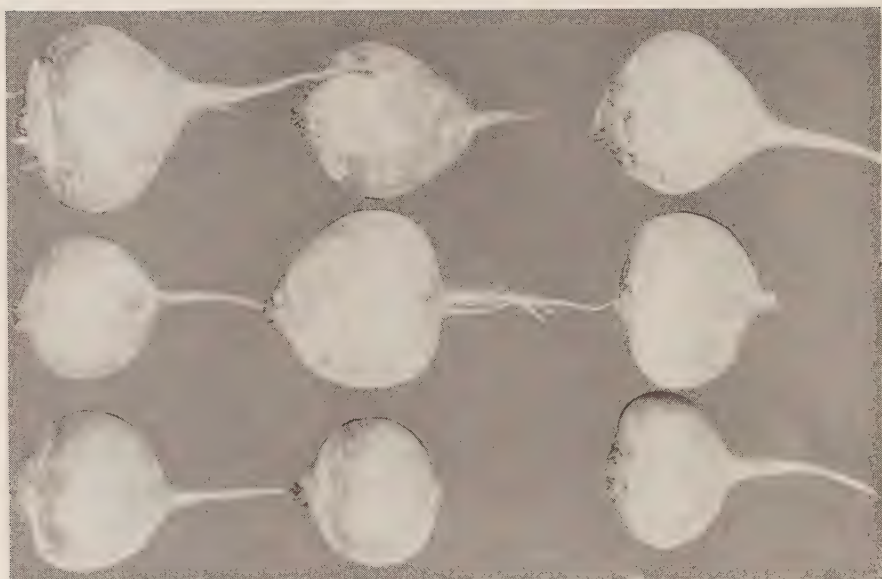
*Root*—Form: Length  $2\frac{1}{8}$  inches; breadth  $3\frac{1}{8}$  inches; about  $\frac{1}{2}$  above ground; quite globular or rounded when young; top of root, flatly rounded or squared, smooth with small collar; base of root, roundly tapering, full.

Tap Root: Rat-tail-like.

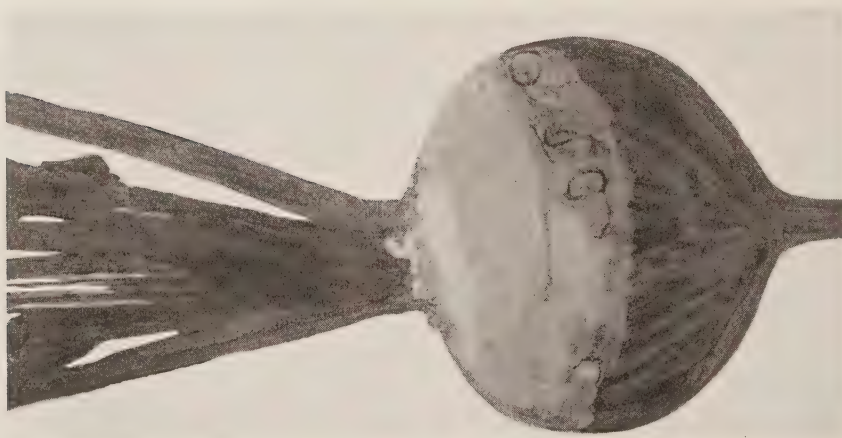
Surface: Very smooth, with the exception of a few fibrous roots near the base. Bright red exterior colouration.

Flesh: Bright vermilion red with fine zoning of a pale red or pink. Very tender and fine-grained; sweet.

*Adaptation*—One of the best for early planting out-of-doors for bunching.



\*DETROIT DARK RED





**\*DETROIT DARK RED**

*Synonyms*—Detroit.

*Season*—May be used for the early crop for bunching, requiring around 65 days from sowing to ready-for-use.

*Plant*—Upright, clean well-defined crown of medium size.

Leaves: Compact and quite upright, measuring on an average of  $5\frac{3}{4}$  inches from the tip to the juncture of the petiole by  $4\frac{1}{4}$  inches wide.

Colour: Green to dark green shaded or blotched with red and red-shaded petioles.

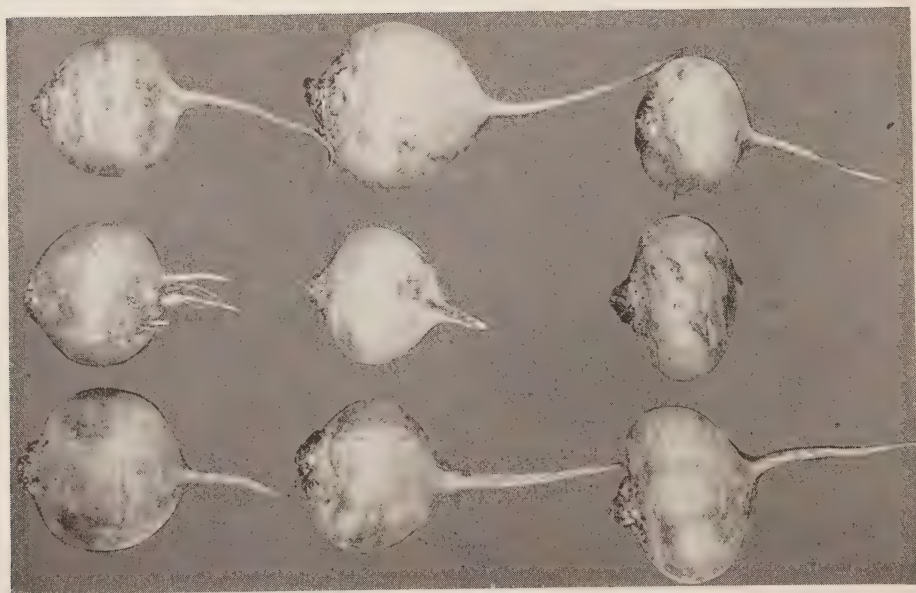
*Root*—Form: Globular to almost round in shape when medium-sized and grow quite shallow in the ground; top of root, roundly tapering, full, smooth; base of root, roundly tapering full.

Tap root: Medium-sized, medium to short fleshy, clean well defined, joining almost abruptly to the base of the beet.

Surface: Very smooth, showing a dark to almost blood-red colour. The base of the beet is very free from root hairs.

Flesh: Shows a vermilion red, with zoning of a lighter shade of the same colour.

*Adaptation*—For home and market garden as a bunching sort or for winter storage and for canning due to the high quality.



CRIMSON GLOBE



**CRIMSON GLOBE**

*Synonyms*—Early Crimson Globe, Improved Crimson Globe, Deep Crimson Globe, New Crimson Globe, Improved Globe, Rochester or Improved Crimson Globe.

*Season*—May be used for a second early, requiring from 65 to 70 days from sowing to ready-for-use.

*Plant*—Strong, erect, with a relatively small collar with a short taper.

*Leaves*: Moderately compactly arranged, which average  $5\frac{2}{3}$  inches from tip to the juncture with the petiole, by  $4\frac{3}{4}$  inches in width.

*Colour*: The foliage is a rich bronze-purple.

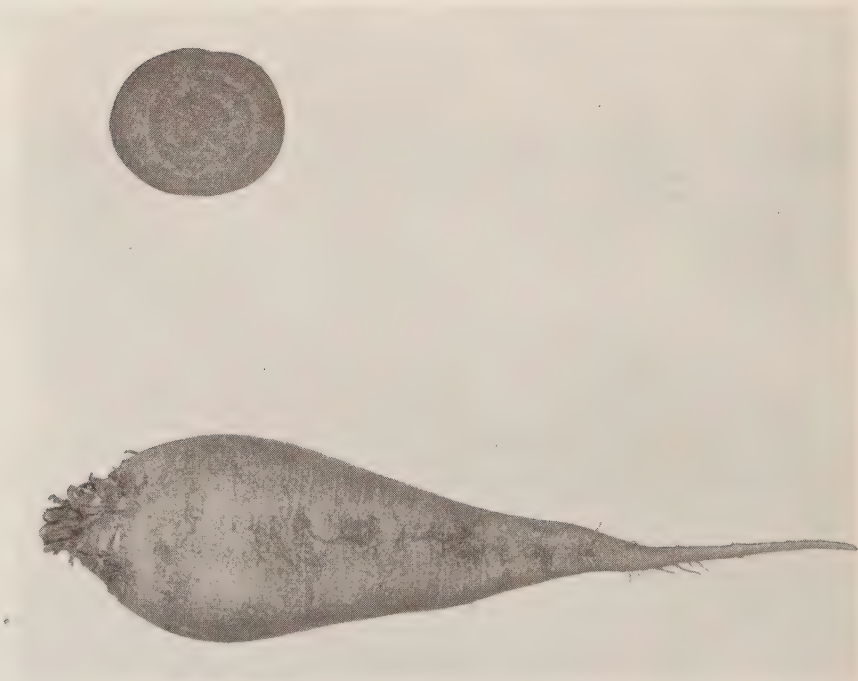
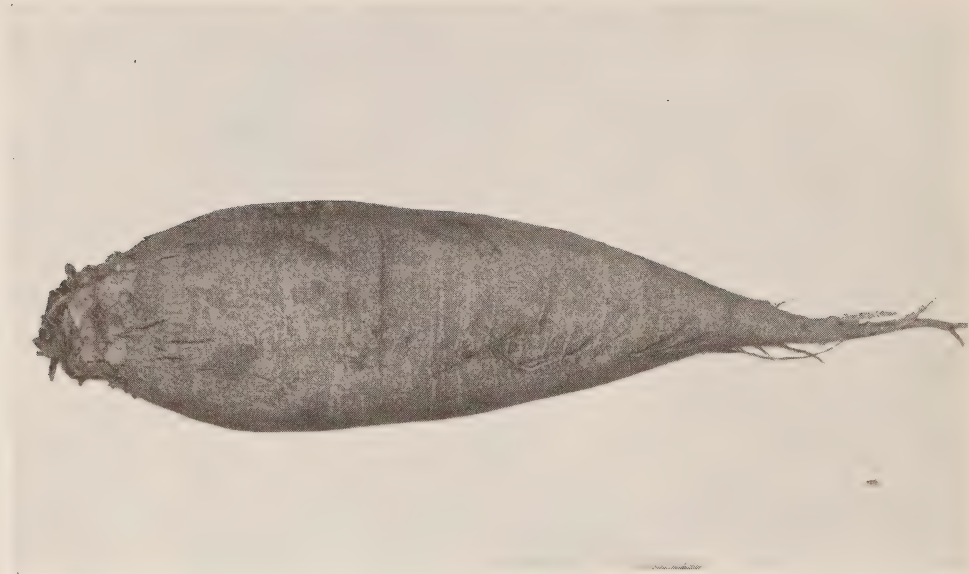
*Root*—Form: Globe-shaped, and grows about  $\frac{1}{3}$  above the ground; length,  $3\frac{3}{4}$  inches; breadth,  $3\frac{1}{2}$  inches; top of root, very short taper, full.

*Tap root*: Rapidly tapering rat-tail; fleshy at base of root.

*Surface of root*: Very smooth, with deep-red showing throughout the surface of the skin.

*Flesh*: Fine, tender good quality, rich blood-red, with faint zoning rings.

*Adaptation*—Can be used best as a main-crop sort.





**HALF LONG BLOOD**

*Synonyms*—Strasburg Dark Blood Half Long, New Half Long, Half Long, Half Long Blood Red, Half Long Dark Blood, Market Gardeners, Philadelphia or Perfection Half Long, Perfected Half Long.

*Season*—Winter and spring, requiring from 75 to 80 days from planting to ready for use.

*Plant*—Strong upright, with clean well-defined crowns in most cases tapering roundly-full upwards from the broad shoulder.

Leaves: Are extremely smooth and glossy and may be termed as medium in size.

Colour: Varies greatly from deep-red to bronzy-green with prominent red veins.

*Root*—Form: Half Long; length longitudinally  $7\frac{1}{2}$  inches with a diameter of  $2\frac{5}{8}$  inches close to the crown, the crown showing above ground to the extent of  $1\frac{1}{2}$  inches; top of root, full rounded to tapering; base of root, tapering almost abruptly to a point.

Tap Root: Medium to short; tapering in some cases absent as the roots frequently terminate in a few small roots or rootlets.

Surface: Three rows of side roots are present with quite prominent lenticles; otherwise very smooth. The colour is a rich dark red.

Flesh: Dark red, with almost indistinct zoning; texture, crisp and tender; quality, very fine and sweet.

*Adaptation*—A very fine sort for winter storage and early spring use.



LONG SMOOTH DARK RED



**LONG SMOOTH DARK RED**

*Synonyms*—Long Dark Blood, Improved Extra Long Dark Blood, Long Red Blood, Improved Long Red, Late Blood, Long Blood, Long Blood Red, Long Dark Blood Red, Long Smooth, Long Smooth Blood, Long Smooth Blood Red, Smooth Long Dark Blood.

*Season*—Best suited for winter storage.

*Plant*—Strong upright growth with a crown that has a tendency to be gross but narrowly tapering to the top from the slender body of the root.

Leaves: Medium in length and width; very smooth and attractive.

Colour: Dark red with numerous pale-red veins.

*Root*.—Form: Long and slender, in many cases flattened somewhat on two sides on which lenticels and fine rootlets develop; length, 13 inches; breadth,  $1\frac{1}{8}$  inches; above ground,  $2\frac{1}{2}$  inches; top of root,  $2\frac{1}{8}$  inches from shoulder to top of bud; base of root, long, tapering.

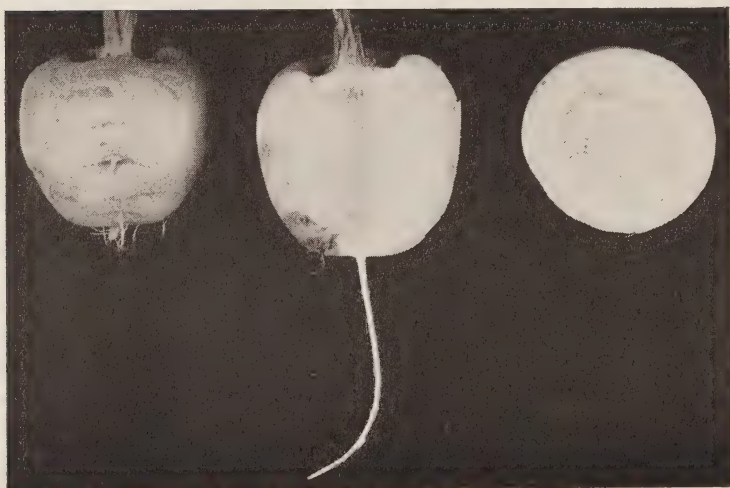
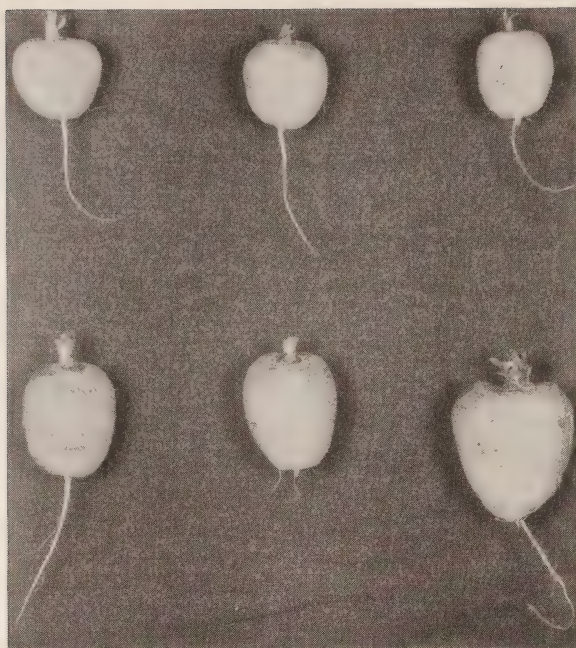
Tap Root: Tapering off to a point.

Surface of Root: Smooth to moderately smooth, with deep dark red colour.

Flesh Colour: Dark red with zoning that is very broad but almost indistinct.

Texture: Crisp and of fine quality.

*Adaptation*.—A fine sort for winter storage. Deep rich loamy soil is necessary for the production of first-class roots.



FRENCH FORCING (EARLIEST SHORT HORN)



**FRENCH FORCING (EARLIEST SHORT HORN)**

*Synonyms.*—French Early Forcing, Very Early Scarlet Forcing, French Red Forcing, Very Early Short Horn Scarlet or French Forcing, French Forcing Horn, Early French Short Horn, Earliest Scarlet French Forcing, Early Scarlet Short Horn, Early Scarlet French Horn, Early French Forcing or Short Horn, Early French Forcing, Earliest French Forcing, Golden Ball Forcing, Early Golden Ball or French Forcing, French Horn, Earliest Short Horn.

*Plant.*—Growth: Small to medium.

Size of leaves: Small and very fine.

Colour of foliage: Light with shading.

Neck: Small and short.

Habit: Grows almost entirely under ground, with only a small portion of the crown showing above.

*Root.*—Form: Almost globular. Length,  $1\frac{1}{8}$  inches; breadth,  $1\frac{5}{8}$  inches.

Roots: A small tap root is at the blunt apex of the root, with a very few whorls or rootlets developing from the sides.

Crown: Quite deeply hollowed around the neck.

Lenticels: Medium size and considerably sunken.

Colour: Orange-scarlet, possibly a little lighter in colour than some of the other orange-coloured sorts.

Core: Medium to large in proportion to bark.

Texture: Fine, crisp, tender.

*Adaptation.*—Well suited for forcing.



SCARLET HORN



**SCARLET HORN**

*Synonyms*—Short Horn or Early Scarlet Horn, Early Scarlet Horn or Dutch Horn, Early Scarlet Dutch Horn, Dutch Horn Blunt, Scarlet Horn or Early Short Horn, Early Short Scarlet, Early Scarlet or Short Horn, Early Scarlet Horn.

*Plant*—Growth; Medium to small.

Size of leaves: Medium to small, very fine.

Colour of Foliage: Light or pale without shading.

Neck: Small and short.

Habit: Grows quite deeply in the ground with only a small portion of the crown showing above the ground.

*Root*—Form: Stump-rooted, tapering from the shoulder to the base, where full-grown; length,  $3\frac{1}{8}$  to  $3\frac{1}{2}$  inches by  $1\frac{1}{4}$  inches at the shoulder, and 1 to  $1\frac{1}{4}$  inches thick at the apex. When young, the roots do not show the blunt end but are quite pointed.

Roots: A small tap root extends from the blunt apex.

Crown: Hollowed slightly around the neck, being quite smooth and symmetrical.

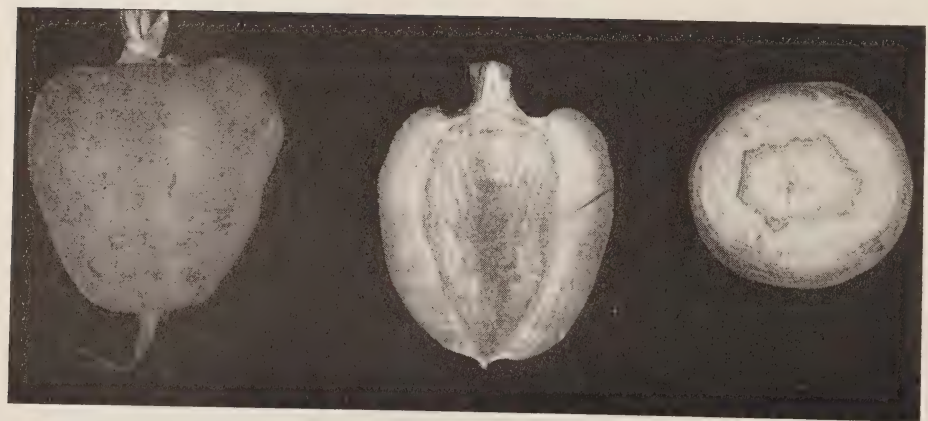
Lenticels: Not prominent, giving the surface of the root a smooth appearance.

Colour: Rich orange on the surface, shading lighter towards the centre of the root.

Core: Medium to small in proportion to the thickness of the bark.

Texture: Crisp, tender, sweet and juicy when used while the roots are small.

*Adaptation*—Well suited for first early sowing out of doors.



OXHEART (GUERANDE)



**OXHEART (GUERANDE)**

*Synonyms*—Oxheart or Half Long Guerande, Early Oxheart or Guerande, Early Guerande or Oxheart, Norfolk Gem, Gem or Early Gem, Guerande or Oxheart, Guerande.

*Plant*—Growth: Medium to large.

Size of leaves: Medium to large, coarsely divided.

Colour of foliage: Medium to light green.

Neck: Large to medium tapering upwards.

Habit: Grows uniformly deep in the soil, with considerable of the run of the crown showing above the ground level.

*Root*—Form: Almost globular when fully matured, but quite pointed when immature. The length from crown to apex ranges from  $4\frac{1}{2}$  to 5 inches; breadth,  $3\frac{1}{2}$  to 4 inches at the crown, and 2 to  $2\frac{1}{2}$  at the blunt apex.

Roots: A single rat-tail root extends from the apex.

Crown: Moderately to deeply hollowed, coarse.

Lenticels: Large, moderately numerous giving a somewhat roughened appearance on the surface of the fully developed roots.

Colour: Outside of root, bright orange, gradually becoming lighter towards the core.

Core: Medium to large, well defined.

Texture: Medium to fine.

*Adaptation*—May be used for a truck crop and for general field crop.



\*CHANTENAY



**\*CHANTENAY**

*Synonyms*—Model, Chantenay Half Long, Chantenay Half Long Scarlet, Chantenay or Model, Early Chantenay, Early Chantenay or Model, Early Half Long Scarlet Chantenay, Chantenay Half Long Stump Rooted, Chantenay Stump Rooted, Improved Chantenay, Early Half Long Chantenay, Exhibition Chantenay Favorite.

*Plant*—Growth: Medium to strong.

Size of Leaves: Medium, moderately fine.

Colour of Foliage: Light green without shading.

Neck: Medium to small, short.

Habit: Grows uniformly deep in the ground with only the rim of the crown showing.

*Root*—Form: Broad shouldered, tapering slightly to a bluntly rounded stump end. Length  $4\frac{3}{4}$  to  $5\frac{1}{2}$  inches; breadth at the crown 2 to  $2\frac{1}{2}$  inches; breadth at the apex or where the root rounds off, 1 to  $1\frac{1}{2}$  inches.

Root: A single rat-tail extends from the apex.

Crown: Hollowed slightly with well-rounded rim or shoulder.

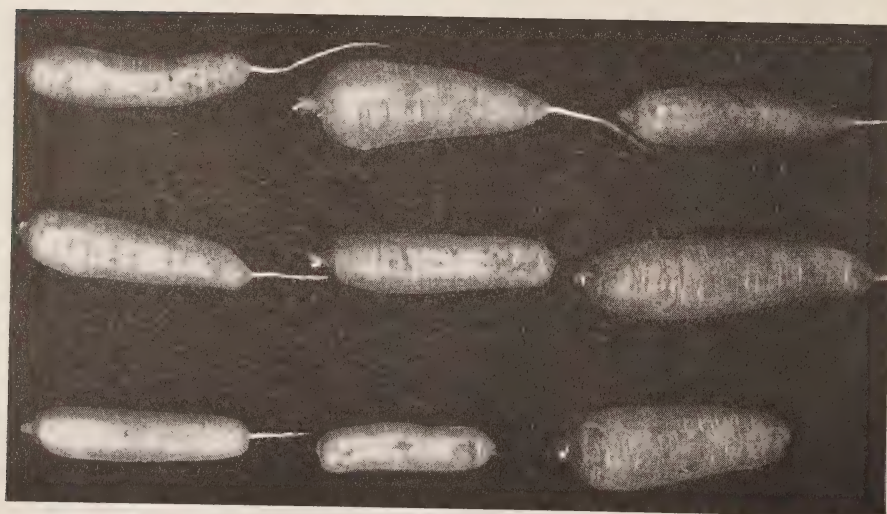
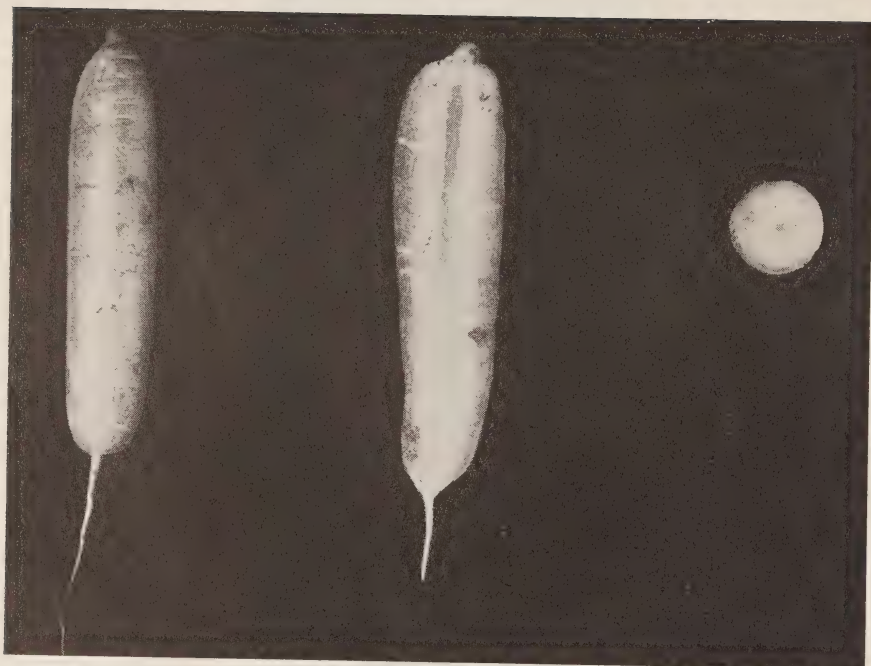
Lenticels: Shallow, small, giving a smooth appearance to the surface of the root.

Colour: Outside is a good orange-red, shading to a lighter colour towards the core.

Core: Medium, large, very pronounced or well defined.

Texture: Moderately fine, crisp, tender, sweet.

*Adaptation*—May be used for home and market garden, and quite suitable for a general field crop.



NANTES



## NANTES

*Synonyms*—Half Long Scarlet, Nantes Stump Rooted, Half Long Nantes, Nantes Half Long Stump Rooted, Nantes Half Long Scarlet, Half Long Stump Rooted Nantes Strain, Nantes Stump Rooted, Early Half Long Nantes, Half Long Coreless Nantes, Improved Nantes, Nantes Half Long, Early Nantes, Coreless.

*Plant*—Growth: A moderately good grower.

Size of Leaves: Medium to small, very finely divided.

Colour of Foliage: Light without shading.

Neck: Small, fine, short.

Habit: As a rule the roots grow well underground with only a small portion of the crown and shoulder showing.

*Root*—Form: Cylindrical, carrying the size uniformly from crown to apex, very stumped; half long. Length  $5\frac{1}{2}$  to 6 inches; breadth  $1\frac{1}{4}$  to  $1\frac{1}{2}$  inches. The apex terminates bluntly.

Roots: A very fine tap-root extending from the apex, with a few fine lateral rootlets from the sides constitute the total root system.

Crown: Slightly hollowed around the neck; shoulder tapering slightly.

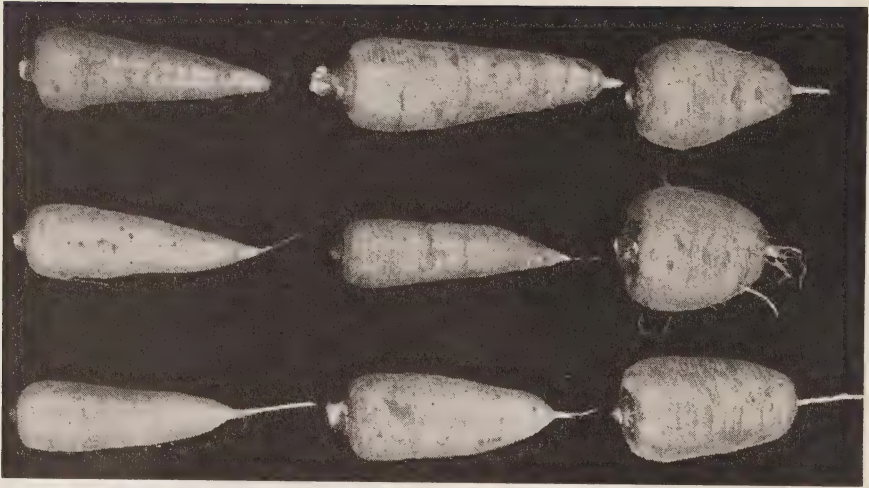
Lenticels: Almost inconspicuous, giving the surface of the root a very smooth appearance.

Colour: Rich orange, shading to a good yellow at the core.

Core: Very small, giving a good thickness of bark to core.

Texture: Crisp, fine, tender; excellent quality.

*Adaptation*—Best suited for home gardens, but can also be used for market garden purposes.



\*DANVERS HALF LONG

**\*DANVERS HALF LONG**

*Synonyms*—Danvers, Danvers Half Long Orange, Henderson Selected Half Long Danvers, Half Long Danvers, Danvers Intermediate, Improved Danvers Half Long, Market Garden, Danvers Half Long, Danvers Half Long Scarlet, Danvers Half Long Improved, Prize Danvers, Orange Danvers, Selected Danvers, Exhibition Danvers, Danvers Improved, Vaughan Select Danvers, Stump Rooted Half Long.

*Plant*—Growth: Decidedly stronger than Chantenay.

Size of Leaves: Medium large, and medium to finely divided.

Colour: Medium to light.

Neck: Medium to small, short or abrupt.

Habit: Grow quite deep in soil with only a small portion of the crown above ground.

*Root*—Form: Half-stumped or semi-pointed, tapering from the shoulder rapidly towards the apex and terminating in a slightly blunt end or point. Length 7 to  $7\frac{1}{2}$  inches from crown to apex; breadth at the shoulder 2 to  $2\frac{1}{2}$  inches and  $\frac{3}{4}$  inch in diameter near the apex where the root begins to taper off rapidly.

Roots: A single short rat-tail extends from the apex, with a few whorls or fine rootlets from the sides.

Crown: Full to flattened.

Lenticels: Distinct, giving the surface of the root only a moderately smooth surface.

Colour: Orange, rapidly fading to pale yellow at the core.

Core: Very distinct and large in proportion to bark.

Texture: Fine and crisp when young, and of medium quality when full grown.

*Adaptation*—Well suited for home, market garden and general field crops.





JAMES INTERMEDIATE (SCARLET)

**JAMES INTERMEDIATE (SCARLET)**

*Synonyms*—Red Intermediate (Sutton), Henderson Intermediate, James Intermediate Scarlet, Sutton Intermediate, Scarlet Intermediate, Intermediate Red (Shumways), Sutton Red Intermediate, Intermediate Half Long.

*Plant*—Growth: Strong vigorous, large.

Size of Leaves: Medium to large, finely divided.

Colour of Foliage: Medium to light without shading.

Neck: Medium in size and inclined to be short.

Habit: A very deep-rooted sort, only the rim of the crown showing above ground.

*Root*—Form: Long pointed, tapering in a straight line from the shoulder to the apex, terminating in a point. Length varies from  $7\frac{1}{2}$  to 8 inches; breadth  $1\frac{1}{2}$  to  $1\frac{3}{4}$  inches at the shoulder.

Roots: A long tap root extends from the elongated point.

Crown: Very full.

Lenticels: Medium in size but not prominent. The surface is very smooth.

Colour: The outside is a bright orange-scarlet shading lighter towards the core. The core is decidedly lacking in colour.

Core: Very clearly defined, of medium to large size.

Texture: Inclined to be coarse and not very desirable for a table carrot.

*Adaptation*—On account of the extremely long tapering roots and attractive appearance is a very desirable variety for exhibition purpose; also for a main crop.

## APPENDIX

### RULES GOVERNING THE PRODUCTION OF FOUNDATION STOCK, ELITE STOCK SEED, AND REGISTERED SEED

#### A. SELF-FERTILIZED PLANTS

(Including such crops as Beans and Garden Peas)

*As adopted by the special vegetable committee under the C.S.G.A.*

1. "Foundation Seed" should constitute the traceable progeny of a strain proven by inspection to be of uniform type and outstanding merit and be produced from one; or in special cases, more plants, of recorded origin in the hands of the original breeder or Station or legal successors.

(a) Before Foundation Seed may be registered with the C.S.G.A. as such, it must be proven by inspection, to be of uniform type and outstanding merit.

(b) There should be a standard percentage of uniformity for each kind of vegetable.

(c) The acreage of Foundation Stock of any one strain produced by any one grower or station is limited to one-quarter of an acre.

(d) Immediately after Foundation seed is passed out of the hands of the original breeder, it becomes Elite Stock seed.

2. "Elite Stock Seed" constitutes the multiplied progeny of Foundation Seed or subsequently of Elite Stock Seed when registered with the C.S.G.A.

(a) Before Elite Stock Seed may be registered with the C.S.G.A. as such, it must be proven by inspection, of uniform type, and outstanding merit.

(b) Such official inspection includes two examinations of the standing crop at times as required.

(c) Beans and Garden Peas, to be recognized in official inspection for Elite Stock Seed must be planted at not less than 5 yards distance from plants of the same variety or kind.

(d) The seed must be planted in a manner to permit effective rogueing with adequate pathways at least every four feet.

(e) The acreage of Elite Stock Seed of any one strain produced by one grower or station is limited to five acres.

3. "Registered Seed" constitutes the multiplied progeny of Elite Stock Seed or subsequently of Registered A Seed of less than the fourth generation.

(a) In every case such multiplication, to be recognized as Registered Seed, must be examined and passed upon by authorized inspectors, and must meet the requirements laid down in the Seeds Act.

(b) Registered Seed, to be recognized in official inspection must be planted at not less than 5 yards distance from plants of the same variety or kind.

(c) When registered seed has completed its fourth generation, the grower, who desires to produce Registered A Seed must secure for foundation either, and preferably, Elite Stock Seed or Registered A Seed of a younger generation.

(d) Registered B Seed cannot be used for the production of registered seed.



## B. OPEN-FERTILIZED PLANTS

(Including such crops as Sweet Corn, Cabbage, Kale, Kohl Rabi, Brussels Sprouts, Broccoli, Cauliflower, Mustards, Onions and Leeks, Celery, Cucumbers, Melons, Pumpkins, Squash, Parsley, Chicory, Endive—the only slightly crossing Lettuce, Tomatoes, Peppers and Egg Plant—and the dioecious, Spinach, and Asparagus.)

*As adopted by the special vegetable committee under the C.S.G.A.*

1. "Foundation Seed" should constitute the traceable progeny of a strain, proven by inspection to be of uniform type and outstanding merit and be produced from one, or in special cases, more plants, of recorded origin, in the hands of the original breeder or station, or their legal successors.

(a) Before Foundation Seed may be registered with the C.S.G.A. as such, it must be proven by inspection, to be of uniform type and outstanding merit.

(b) There should be a standard percentage of uniformity for each kind of vegetable.

(c) The acreage of Foundation Seed of any one strain produced by any one grower or station is limited to one-quarter of an acre.

(d) Immediately after Foundation Seed is passed out of the hands of the original breeder, it becomes Elite Stock Seed.

2. "Elite Stock Seed" constitutes the multiplied progeny of "Elite Seed" or subsequently of Elite Stock Seed when registered with the C.S.G.A.

(a) Before Elite Stock Seed may be registered with the C.S.G.A. as such, it must be proven by inspection, to be of uniform type and outstanding merit.

(b) Such official inspection includes one or more examinations of the crop at times as required.

(c) Except in the case of the same identical strain, Elite Stock Seed, to be recognized in official inspection, must be planted at sufficient distance from plants of the same variety or kind. Unless otherwise protected, i.e. by intervening woods, orchards or other suitable insulation, a distance of approximately one-half mile should be allowed between different sorts, except in the case of Lettuce, Tomato, Pepper and Egg Plants, which may be grown at 25 yards distance between different sorts.

(d) The seed and plants must be planted in rows with sufficient distance between individual plants to permit effective rogueing and inspection.

(e) Strains which have already been accorded registration may be used for the production of Elite Stock Seed provided the regulations for the growing and inspection of such seed are complied with.

(f) Stock Seed which has been officially "blanketed in" by the C.S.G.A. may be used for the production of "Registered B Seed" until recognized Elite Stock Seed has been produced from the variety or strain in question.

(g) The acreage of Elite Stock Seed of any one strain produced by any one grower or station is limited to five acres.

3. "Registered Seed" constitutes the multiplied progeny of Elite Stock Seed whether obtained from a grower of Elite Stock Seed or produced by the grower of Registered Seed, provided the conditions as set forth above regarding the production of Elite Stock Seed are complied with.

(a) "Registered A Seed" may be used as foundation for Registered B Seed, but Registered A Seed can only be produced from Elite Stock Seed.

(b) In every case such multiplication to be recognized as Registered Seed must be examined and passed upon by authorized inspectors, and must meet the requirements laid down in the Seeds Act.

(c) Such official inspection includes one or more examinations of the crop in question at times when required.

(d) Except for Lettuce, Tomatoes, Peppers and Egg Plants, which may be grown for seed at 10 yards distance from plants of the same variety or kind, no Registered Seed of this class to be recognized in official inspection can be planted at less than one-quarter of a mile distance from plants of the same variety or kind, unless properly protected by adequate insulation.

(e) With the exception of such strains which have already been accorded registration, Registered Seed which has been produced from "blanketed-in" stock seed shall not be graded higher than Registered B.

STATEMENT OF IMPORTS OF BEET AND MANGOLD SEED AND CARROT SEED BY COUNTRIES ENTERED FOR CONSUMPTION IN CANADA DURING THE FISCAL YEARS ENDED MARCH 1922 TO 1926

Item and Country	1922		1923		1924		1925		1926	
	Lb.	Value \$	Lb.	Value \$	Lb.	Value \$	Lb.	Value \$	Lb.	Value \$
<i>Beet and Mangold Seed—</i>										
United Kingdom.....	65,558	8,879	51,071	8,117	101,227	11,478	100,851	10,858	184,651	19,658
Denmark.....	326,456	54,249	1,115	269	1,075	276	66,229	6,783	223,008	26,338
France.....	47,074	6,333	96,556	15,088	117,670	15,908	101,791	16,290	53,937	8,309
Germany.....			242,000	132,000	269,292	27,701	585,075	59,204	455,166	52,073
Japan.....		17	67	64						
Netherlands.....	110,877	20,094	560	71	4,825	629	6,505	1,066	63,887	7,121
Poland.....					36,300	3,795			71,660	7,920
Sweden.....									92	33
United States.....	116,965	26,958	50,265	14,021	76,989	16,949	234,887	36,826	176,619	31,779
Totals.....	666,990	116,530	441,634	169,630	607,378	76,736	1,095,338	131,027	1,229,020	153,231
<i>Carrot Seed—</i>										
United Kingdom.....	5,321	1,543	3,881	1,424	11,373	3,504	9,968	3,048	10,805	3,877
Denmark.....	365	93	70	33		3	35	11		
France.....	12,189	2,633	10,276	3,030	18,418	5,134	6,580	2,191	5,285	2,071
Netherlands.....	10	2	45	9	750	189	1,690	451	1,345	409
United States.....	29,765	8,519	28,822	6,330	28,705	7,239	17,971	6,463	37,707	11,277
Totals.....	47,650	12,790	43,094	10,826	52,248	16,069	36,244	12,164	55,142	17,634

NORE.—This table was furnished by the Department of Customs and Excise of Ottawa.

# ALPHABETICAL LIST OF VARIETIES AND SYNONYMOUS NAMES

(All Synonyms in Italics)

## BEETS

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